double bifurcation lesion stenting group (SBSK Group), the major were completed after 2010. In the 30 patients, Including 22 males and 10 females, age 43 to 78. In whicn, 12 cases with acute myocardial infarction in the recovery period, 18 cases with unstable angina. Lesions: 30 cases of patients with vascular disease are true bifurcation lesions in line with the Lefevre taxonomy branch vessel diameter> 2.0mm. In which, lesions of 22 cases were the left anterior descending (LAD) + D1, 6 cases were circumflex artery + OM, 2 cases were right coronary artery + sharp marginal branch.
Results: 2 patients did not complete the final kiss expansion In DK group, the completion rate was 92.3%. 2 patients did not complete the final kiss expansion In SBSK group, the completion rate was 93.3%, the two groups was not statistically different. The time of guide wire through the stent mesh into the branch was 6±4.6min after stenting main branch in SBSK group, PCI's total time was 38±19 min, total contrast agent of PCI was 90±60ml. In DK group, due to the earlier completion without making related statistics.
Conclusions: SBSK crush and DK crush technology can obtain a high and eventually kissing expansion rate. SBSK crush is easier to operate, it is possible to further shorten the time of PCI and reduce the use of contrast agents.

GW25-e4144

Effect of intensive atorvastatin treatment on serum sFas in patients with acute myocardial infarction

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Objectives: The mechanism of myocardial cell apoptosis after myocardial infarction is uncertain. There were studies that showed that sFAS may play a role the pathogenesis of apoptosis. Intensive statin therapy is usually used to patients undergoing primary PCI. This study was designed to evaluate the effect of intensive atorvastatin treatment on serum sFas level in patients with acute myocardial infarction.
Methods: Totally, sixty patients undergoing primary PCI with acute myocardial infarction were randomly assigned to two groups: atorvastatin 40mg/d group and atorvastatin 20mg/d group. Strepavidin-biotin ELISA was used to determine the serum sFas level before and after primary PCI.
Results: Serum sFas was not significantly different between the two groups before primary PCI and at 24h after PCI. Serum sFas were lower in the 40mg/d treatment group than that in the 20mg/d treatment group at 72h after PCI (4.38±1.27 vs. 4.91±1.13 ng/ml P<0.05).
Conclusions: Intensive atorvastatin treatment can decrease sFas level and may play a role in reducing myocardial apoptosis.

GW25-e4485

The analyses of incidence of failure and relate factors in patients with retrograde wire for the treatment of chronic coronary artery occlusion

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Objectives: To evaluate the incidence of failure and related factors in patients with regrograde wire technique for the treatment of chronic coronary artery occlusion.
Methods: The data of 170 CTO patients undergoing retrograde PCI for a CTO from August 2004 to October 2013.170 cases with chronic coronary artery occlusion underwent transcutaneous coronary artery intervention (PCI) therapy by retrograde wire technique were enrolled in this study (male: 97, mean age: 60.6±11.3 years).Failure is defined as wire is unable to pass through the occlusion of the target – artery or retrograde wire is unable to find the collateral circulation of miraclechannel. And the procedure is failed in stent implantation. We assessed the plasticity and determinants of retrograde wire technique of PCI.
Results: The data of 170 CTO patients undergoing retrograde PCI for a CTO from August 2004 to October 2013 were analyzed. The average occlusion time lasts more than 3.3 years, including 70 LAD CTO and 88 RCA CTO. Retrograde wire technique was failued to performe in 26 patients with chronic coronary artery occlusion. The average of 26 patients were treated by 4.3 guidewires, 1.2 microcatheters and intravascular contrast media 210ML. there were no significantly changes about left atrial (LA) diameter and left ventricular (LV) ejection fraction (P>0.05) between success group and failue group. There were 26 patients (26/170, 15.2%) with at least one reason, including 17 cases with the wire is unable to pass through the collosion; 2 cases with small right coronary artery; 7 cases with bad collateral miraclechannel. In logistic regression analysis, the occlusion time between 3-12months and whether the target artery had received antigrade wire technique before were the independent predictors of failure rate.
Conclusions: According to the data, the success rate of the occlusion time between 3-12months is the lower than 1-3years. There is no difference of the success rate between occlusion segment ≥15 mm and <15 mm, which is different from the previous view. Retrograde wire technique significantly increases the success rate of procedure in patients who failed in antegrade wire technique.

GW25-e4577

An exploratory study: Clinical application of the index of microcirculatory resistance measured by pressure/temperature wire in coronary heart disease

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Objectives: In coronary heart disease, whether the function of microcirculation is damaged strongly associates with patients' prognosis. Cardiologist is ought to value microcirculation as well as epicardial arteries. Index of microcirculatory resistance, or IMR, is a novel method to estimate myocardial microcirculation. Overseas studies have already demonstrated its accuracy, but few researches about IMR are reported in China. We design this study, aiming at exploring clinical application of IMR in coronary heart disease, evaluating factors which may influence myocardial microcirculation, assessing possible association between IMR and periprocedural myocardial injury/infarction.
Methods: We enroll 52 patients with coronary heart disease who would take coronary angiography in Peking University Third Hospital. Data about gender, age, diagnosis, risk factors, medications, blood tests and transthoracic echocardiography are obtained. IMR, FFR, CFR are measured in catheter lab. Post-PCI myocardial enzymes are also recorded. We analyze factors which may associate with IMR and the possible association between IMR and periprocedural myocardial injury/infarction.
Results: (1) IMR is measured is 50 patients, with a success rate of 96.2%. Among the 50 patients, 38 are males and 12 are female, with a mean age of 60.5±11.5. There are 4 cases of stable angina pectoris, 40 cases of unstable angina pectoris, and 6 cases of acute myocardial infarction, convalescence. 42 patients are treated with interventional therapy. The vessel used to measure IMR is LAD in 35 patients, LCX in 7 patients and RCA in 8. The mean IMR is 13.7±4.5U. (2) HDL-C and heart function are associated with IMR. HLD-C positively correlates with IMR (r=0.288, P=0.042). LVEF positively correlates with IMR (r=0.395, P=0.005). LVEDD negatively correlates with IMR (r=-0.397, P=0.005). Left ventricular mass index also negatively correlates with IMR (r=-0.313, P=0.032). (3) IMR is significantly lower in patients with oral nicorandil for ≥ 4 days (14.8±4.9 vs 11.4±3.0, P=0.023). (4) IMR is higher in patients with periprocedural myocardial injury/infarction, but not significantly (13.8±4.1 vs 13.1±3.8, P=0.530). There is no correlation between IMR and myocardial enzymes post-PCI. Logistic regression displays that post-dilation independently influences periprocedural myocardial injury/infarction (OR=5.893, 95%CI: 1.105-31.412). The incidence of periprocedural myocardial injury is significantly higher in patients with post-dilation (51.7% vs 15.4%, P=0.027).
Conclusions: (1) IMR is a safe and feasible invasive method to assess myocardial microcirculation, with high success rate and few complications, which deserves to be promoted the clinical application in coronary heart disease. (2) IMR is able to reflect tiny changes in myocardial microvascular induced by nicorandil, which refers to high sensitivity and accuracy of IMR. (3) Dysfunction of myocardial microvascular is not common in coronary heart disease. HDL-C, LVEF, LVEDD and left ventricular mass index correlate with IMR, indicating that clinical concomitant status may influence microvascular. (4) PCI rarely induces microvascular injury evaluated by IMR. There is no evidently association between IMR and periprocedural myocardial injury/infarction. Post-stent dilation is more likely to be associated with periprocedural myocardial injury/infarction.

GW25-e4583

Safety and feasibility of Szabo technique in percutaneous coronary intervention of ostial lesions

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Objectives: The purpose of this study is to evaluate the safety, feasibility and success rate of Szabo technique by analysing technical, angiographic and IVUS findings.
Methods: We analysed 45 PCIs by using Szabo technique. A successful procedure from angiographic (and IVUS) point of view was defined as a precise stent implantation at ostium without side branch compromise.
Results: The access was radial in 36 (80.0%) and femoral in 9 (20.0%) patients. The culprit vessel was LM in 5 (11.1%), LAD in 27 (60.0%), RCA 7 (15.6%), LCX-OM 4 (8.9%), PDA 5 (11.1%), and SVG 1 (2.2%). IVUS was performed through culprit vessel in 31 (68.9%) and was also done in side branch in 10 (22.2%) patients after stent implantation. The procedure of ITT was successful in 45 (100%) patients. The procedure of Szabo was technically successful in 38 (84.4%) patients. All patients had angiographic success (100%). IVUS examination of culprit vessel showed accurate stent placement in ostium 30 (96.8%) and slight stent proximal protrusion in 1 (3.2%) patients.
Conclusions: This study shows that Szabo technique is safe and feasible for PCI in ostial coronary artery lesions with a high angiographic success rate. There was a high percentage of cases with accurate position of stent in ostium confirmed by IVUS.